

ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
REPEALING AND RECREATING AND CREATING RULES

The Wisconsin Natural Resources Board adopts an order to **repeal and recreate** NR 428.06; and to **create** NR 428.02(6m) and 428.04(2)(g)3., relating to emissions averaging provisions and categorical emission limits while controlling nitrogen oxides (NO_x).

AM-35-02

Analysis Prepared by the Department of Natural Resources

Authorizing statutes: ss. 227.11(2)(a) and 285.11(1) and (6), Stats.

Statutes interpreted: s. 285.11(6), Stats. The State Implementation Plan developed under that provision is revised.

For the purpose of attaining the 1-hour ambient air quality standard for ozone in southeastern Wisconsin, this rule package modifies emissions averaging provisions as an alternative compliance option for sources required to achieve emission reductions of nitrogen oxides (NO_x). The rules include several provisions that are specifically required to comply with USEPA guidance.

The order establishes a new categorical emission limit on NO_x emissions from an emerging source category with no previous categorical emission limit.

SECTION 1. NR 428.02(6m) is created to read:

NR 428.02(6m) “Integrated gasification process” means a high temperature process in which gaseous fuel is produced onsite from a carbon-based feedstock.

SECTION 2. NR 428.04(2)(g)3. is created to read:

NR 428.04(2)(g)3. ‘Units fired by an integrated gasification process.’ No person may cause, allow or permit nitrogen oxides to be emitted from a combined cycle combustion turbine that is fired by fuel derived from an integrated gasification process in amounts greater than 15 parts per million dry volume (ppmdv), corrected to 15% oxygen, on a 30-day rolling average basis.

SECTION 3. NR 428.06 is repealed and recreated to read:

SUBCHAPTER II

NO_x EMISSIONS PERFORMANCE PROGRAM COMPLIANCE PROVISIONS

NR 428.06 Determination of compliance. (1) EMISSIONS UNIT COMPLIANCE. Except as provided in sub. (2), each emissions unit subject to the requirements of s. NR 428.04(2) or 428.05(3) shall demonstrate compliance with the applicable performance standards under those provisions on a per unit basis.

(2) UNIT OZONE SEASON NO_x EMISSIONS AVERAGING PROGRAM. (a) Except as provided in par. (b), units subject to s. NR 428.05(3) may participate in an ozone season NO_x emission averaging program for purposes of demonstrating compliance with ozone season NO_x emission limitations in NR 428.05(3) during the ozone seasons of calendar years 2003 and later.

(b) Excess NO_x emission reductions from emissions units subject to s. NR 428.05 that are used in an ozone season NO_x emissions averaging program under this subchapter may not be used for demonstrating compliance by an emissions unit with an NO_x emission limitation established under ch. NR 405 or 408 or s. NR 409.065 or 428.04.

(c) Excess NO_x emission reductions, for purposes of meeting the requirements of this subchapter, shall be emissions reductions beyond those required to meet all state and federal requirements. In addition, excess emission reductions shall be quantifiable through the monitoring requirements under ss. NR 428.05 and 428.07, and enforceable.

(3) AGGREGATE LIMIT ON OZONE SEASON EMISSIONS. All units participating in an ozone season NO_x emissions averaging program after December 31, 2007 shall be subject to an aggregate limit on the total tons of NO_x which may be emitted during the ozone season as determined under sub. (4)(e).

(4) PROSPECTIVE EMISSIONS AVERAGING PLAN. An owner or operator of an emissions unit who wishes to participate in an ozone season NO_x emissions averaging program shall submit a prospective emissions averaging plan to notify the department of all the owner's or operator's emissions units participating in an ozone season NO_x emissions averaging program. This plan shall establish compliance requirements for each unit and for all units in the aggregate with respect to emissions rate limitations and mass emissions limitations. The plan shall estimate each participating unit's anticipated operation to meet these requirements.

(a) *Plan submission.* The emissions averaging plan shall be submitted to the department no later than 90 days prior to the beginning of the ozone season covered by the plan. A revised plan may be submitted to the department no later than 30 days prior to the beginning of the ozone season covered by the plan.

(b) *Plan elements.* The emissions averaging plan shall include the following information for each emissions unit participating in the averaging program. All information shall be provided by applicable fuel category.

1. The responsible owners or operators.
2. The applicable ch. NR 428 emission limitation.
3. The projected ozone season heat input in million Btu or equivalent units.
4. The projected average NO_x emission rate, in pounds per million Btu or equivalent, and total mass emissions for the ozone season.
5. Information sufficient to determine the emission rate and mass emission limit and the alternative compliance limit required under par. (f) for each unit.

(c) *Units with multiple owners.* If an emissions unit has multiple owners, the unit's mass emissions and heat input may be allocated among the owners provided all mass emissions and the entire heat input of the unit are allocated. Alternatively, the operator of a unit with multiple owners shall be allocated all mass emissions and the entire heat input. Each owner may use his or her share of mass emissions and heat input in any ozone season NO_x emissions averaging plan. Each owner shall be the responsible party for compliance and liability for the owner's share of mass emissions and heat input for the requirements of this subchapter.

(d) *Plan emission rate limit.* 1. The emissions averaging plan shall establish an aggregate ozone season NO_x emission rate limit for all of the emissions units participating in the averaging program.

2. The aggregate ozone season NO_x emission rate limit is calculated as the heat input weighted aggregate of the individual units' ozone season emission rate requirements less an environmental benefit factor of 0.01 pounds per million Btu or equivalent for each unit. This calculation is expressed as:

Plan Emission Rate = {Sum [Projected Unit Heat Input x (Unit Emission Rate Limit – 0.01)]} / (Sum of Projected Unit Heat Inputs)

(e) *Plan mass emission limitation.* 1. The emissions averaging plan shall establish an ozone season aggregate mass NO_x emission limitation for all of the units participating in an averaging program during any ozone season after December 31, 2007.

2. The aggregate mass emissions for all units that are eligible to participate in an emissions averaging plan may not exceed the combined allocation of all participating units' mass emissions limitation as determined under subd. 3.

3. Each unit participating in any ozone season NO_x emissions averaging plan shall have a mass emissions limitation equal to 15,912 tons multiplied by that unit's share of the average aggregate heat input of all eligible units of all owners determined by actual heat inputs for these units from the 1995, 1996 and 1997 ozone seasons as determined by the department.

4. If a unit eligible to participate in an ozone season NO_x emissions averaging plan is retired and replaced by another emissions unit at the same site, the mass emissions from the retired unit may still be used in a plan provided the replacement unit's mass emissions for that ozone season are subtracted from the retired unit's mass NO_x emissions limitation determined under subd. 3.

(f) *Unit alternative compliance limits.* 1. The emissions averaging plan shall establish an alternative compliance limit for each unit participating in the averaging program.

2. The unit alternative compliance limit in mass per million Btu shall be determined by dividing the unit's projected ozone season NO_x emissions by its projected ozone season heat input.

3. The plan shall provide calculations that demonstrate that the projected emissions units operations will not exceed the plan's emission rate and mass limit.

(g) *Plan review.* The emissions averaging plan shall be subject to department review and determination of completeness. The department shall make its determination of completeness and inform the owner or operator of any additional information needed in the plan within 30 days of receipt.

(h) *Public notice.* 1. The owner or operator of any emissions unit participating in an emissions averaging plan shall provide public notice of that plan by publication in a local newspaper at least 60 days prior to the start of the ozone season to which the plan relates and shall provide copies of the plan upon request.

2. The notice shall indicate the purpose of the plan, the participating units and how to obtain a copy of the plan.

(i) *Compliance demonstration.* 1. The owners or operators of any emissions units participating in an emissions averaging plan shall submit a compliance report to the department not later than 60 days after the last day of the ozone season with information sufficient to demonstrate compliance with the plan's emission rate and mass emissions limit.

2. The compliance report shall provide, for each emissions unit, the heat input, NO_x emission rate and total NO_x mass emissions for the ozone season. The compliance report shall provide, in aggregate for all units participating in the emissions averaging plan, the ozone season NO_x mass emissions, heat input in million Btu or equivalent units, and the average emission rate. The aggregate ozone season NO_x emission rate shall be calculated as sum of the actual heat input of each unit times the individual unit's actual emission rate divided by the sum of the actual heat inputs of all units. This calculation is expressed as:

Aggregate average ozone season emission rate = [Sum (actual heat input by unit x actual emission rate by unit)] / (Sum of actual heat inputs)

3. Individual units may not be withdrawn from an ozone season NO_x emissions averaging plan unless it is demonstrated in the compliance report that the withdrawn units individually met their applicable s. NR 428.05(3) emissions limitation requirements and the remaining units in the plan demonstrate compliance with an ozone season NO_x emissions averaging plan after excluding the withdrawn units.

4. If there is a successful demonstration of compliance with the plan's aggregate emissions rate limitation and with the plan's aggregate mass NO_x emissions limitation for the ozone season, all units in the averaging plan shall be deemed to be in compliance for that ozone season with each participating units' alternative emissions rate limitation and heat input.

(j) *Violations and penalties.* 1. All emissions units participating in an ozone season NO_x emissions averaging program may be considered out of compliance if either the aggregate ozone season NO_x emission rate exceeds the emissions averaging plan's emission rate limitation or the aggregate mass NO_x emissions for the ozone season exceeds the plan's aggregate mass NO_x emissions limitation for the ozone season.

2. Each emissions unit is considered in violation for each day of non-compliance until corrective action is taken to reduce emissions and achieve compliance.

3. The department may require additional emission reductions if there are mass emissions exceeding the plan's limit on tons of mass emissions. The department may waive the additional emission reductions if, in consultation with the public service commission, the department determines that the excess emissions were the result of an extraordinary event and that the excess emissions were an unavoidable outcome of a necessary action taken by the source to maintain electric system reliability. Additional emission reductions shall be achieved within the subsequent 3 ozone seasons' allowable mass emission limit for all units participating in the emissions averaging plan. If there is no subsequent averaging plan for the source, the department may require a reduction in the source's emission rate that achieves an equivalent aggregate mass emission reduction.

4. All owners or operators of emissions units considered to be out of compliance with a plan emission rate limit or mass tons limit are liable for each violation and subject to enforcement and penalty provisions under ss. 285.83 and 285.87, Stats.

(k) *Monitoring requirements.* The total mass emissions and heat input shall be quantified by continuous emissions monitoring equipment and procedures required by ss. NR 428.05(4) and 428.07.

(L) *Recordkeeping and reporting requirements.* Owners and operators shall comply with the recordkeeping and reporting requirements of s. NR 428.05(5).

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on August 14, 2002.

The rule shall take effect the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Darrell Bazzell, Secretary

(SEAL)